LISTINGS OF THE CLAIMS

Please amend the claims as follows:

1. (currently amended): A method for automatic digital audio mixing of at least two digital audio files, comprising:

reading ~~at least two~~ said digital audio files;

automatically determining scale factors for scaling each of said digital audio files based on an analysis of said ~~at least two~~ digital audio files by a digital processing unit, the analysis including identifying a peak value and a mean level for each of the digital audio files;

wherein each scale factor is based on an analysis of the entirety of each of said ~~at least two~~ digital audio files relative to the other digital audio files in their entirety, the identified peak value, and the identified mean values for the digital audio files;

applying each said scale factor to the entirety of each of said digital audio files respectively ~~to create scaled digital audio files~~; the scale factors operable to adjust the identified mean levels of the audio files to substantially equivalent levels and adjust the audio files to a recording medium maximum level to create scaled digital audio files; ~~and~~

combining each of said scaled digital audio files into a single audio recording output as a digital file on a storage medium; and

storing the single audio recording output on a storage medium, such that it may be played back by an audio device

2. (currently amended): The method of claim 1, wherein said method is performed within a server device operatively coupled over a network to a client device; wherein said automatic digital audio mixing is resident on the server and initiated upon receiving one of said ~~at least two~~ digital audio files from said client device.

3. (currently amended): The method of claim 1, further including receiving one of said ~~at least two~~ digital audio files from a user.

4. – 35. (cancelled)

36. (currently amended): An apparatus for automatic digital audio mixing and/or mastering of at least two digital audio files, said apparatus comprising:

a means for reading said ~~at least two~~ digital audio files;

a means for automatically determining scale factors for scaling each of said digital audio files based on an analysis of said ~~at least two~~ digital audio files by a digital processing unit being operable to identify a peak value and an average value for each of the said digital audio files;

wherein each scale factor is based on ~~an analysis of a root mean square, peak absolute value, or the combination thereof for each of~~ said ~~at least two~~ digital audio files relative to each other, the identified peak value, and the identified average value for each of the said digital audio files;

a means for applying each said scale factor to each of said digital audio files respectively ~~to create scaled digital audio files~~, the scale factors operable to adjust the identified average levels of the said digital audio files to a substantially equivalent level and adjust the said digital audio files to a recording medium maximum level to create scaled digital audio files; ~~and~~

a means for combining each of said scaled digital audio files into a single audio recording output as a digital file on a storage medium; and

a means for playing back the single audio recording output.

37. (currently amended): The apparatus of claim 36, wherein said apparatus is a server device operatively coupled over a network to a client device; wherein said automatic digital audio mixing is resident on the server device and initiated upon receiving one of said ~~at least two~~ digital audio files from said client device.

38. (currently amended): The apparatus of claim 36, further including means for receiving one of said ~~at least two~~ digital audio files from a user.

39. – 70. (cancelled)

71. (currently amended): A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for automatic digital audio mixing of at least two digital audio files, said method comprising:

reading said ~~at least two~~ digital audio files;

automatically determining scale factors for scaling each of said digital audio files based on an analysis of said ~~at least two~~ digital audio files by a digital processing unit, the analysis including identifying a peak value and a mean level for each of the digital audio files;

wherein each scale factor is based on an analysis of the entirety of each of said ~~at least two~~ digital audio files relative to each other, the identified peak, and the identified mean values for each of the digital audio files;~~:~~

applying each said scale factor to each of said digital audio files respectively, the scale factors operable to adjust the identified mean levels of the audio files to the same level and adjust the audio files to a recording medium maximum level to create scaled digital audio files; ~~to create scaled digital audio files; and~~

combining each of said scaled digital audio files into a single audio recording output as a digital file on a storage medium; and

playing back the single audio recording output.

72. (currently amended): The method of claim 71, wherein said method is performed within a server device operatively coupled over a network to a client device; wherein said automatic digital audio mixing is resident on the server and initiated upon receiving one of said ~~at least two~~ digital audio files from said client device.

73. (currently amended): The method of claim 71, further including receiving one of said ~~at least two~~ digital audio files from a user.

74. – 105. (cancelled)

106. (currently amended) A method for mixing two digital audio files, the method comprising:

inputting a first digital audio file in its entirety and a second digital audio file in its entirety;

calculating audio file characteristic values for the first and second digital audio files, the characteristic values operable to identify average values and peak absolute values for each of the two digital audio files;

generating first and second scale factors based on the audio file characteristic values including the average levels and peak absolute values for each of the digital audio files and a maximum value allowed by an output audio file format;

generating a first scaled digital audio file by applying the first scale factor to the originally input first digital audio file, the first scale factor operable to adjust the identified average level and peak absolute value of the first digital audio file;

generating a second scaled digital audio file, which has an output level that is substantially equivalent to an output level of the first scaled digital audio file, by applying the second scale factor to the originally input second digital audio file, the second scale factor operable to adjust the identified average level and peak absolute value of the second digital audio file;

generating a combined scaled digital audio file by combining the first scaled digital audio file and the second scaled digital audio file; and

playing back the combined scaled digital audio file.

107. (currently amended) The method of claim 106, wherein the ~~characteristic values include~~ said average levels are RMS averages ~~and Peak absolute values~~ of the first and second digital audio files.

108. (currently amended) The method of claim 107, wherein the said scale factors are generated by the following formulae:

$\alpha S_1 = K / (P_1 + \beta_1 * R_1 * P_2 / (\beta_2 * R_2))$ and $\alpha S_2 = K / (P_2 + \beta_2 * R_2 * P_1 / (\beta_1 * R_1))$

where αS_1 and αS_2 are the scale factors to be applied to the first and second audio files, respectively, R_1 and R_2 are the calculated RMS characteristics from the first and second audio files, respectively, β_1 and β_2 are known constant values for the first and second audio files, respectively, P_1 and P_2 are the calculated peak absolute values from the first and second audio files, respectively and K is the maximum output signal level for the output file.

109. (currently amended) The method of claim 1, wherein each scale factor is based on a determined peak absolute value for each of said ~~at least two~~ digital audio files.

110. (currently amended) The method of claim 1, wherein each scale factor is based on a determined root mean square for each of said ~~at least two~~ digital audio files.

111 (currently amended) The method of claim 1, wherein each scale factor is based on a determined peak absolute value and a root mean square for each of said ~~at least two~~ digital audio files.

112. (previously presented) The method of claim 1, further comprising bringing up an overall level of the single audio recording output to a maximum level.

113. (previously presented) The method of claim 112, wherein a peak of the overall level does not exceed a maximum level supported by a data format.

114. (currently amended) The method of claim 1, wherein the single audio recording output is a modification of the at least two digital audio files and is unable to be divided back into the individual digital audio signals.

115. (new) The method of claim 1,

wherein automatically determining scale factors comprises:

pre-processing at least one of said digital audio files to generate at least one pre-processed digital audio file, and

determining a scale factor for each said pre-processed digital audio file; and

wherein applying each said scale factor includes applying said scale factor to each said pre-processed digital audio file to produce scaled digital audio files.

116. (new) The method of claim 115, wherein said method is performed within a server device operatively coupled over a network to a client device.

117. (new) The method of claim 116, further including receiving at least one of said digital audio files from a user.

118. (new) The method of claim 115, wherein said pre-processing comprises adding reverb to at least one of said digital audio files.

119. (new) The method of claim 115, wherein said pre-processing comprises applying audio compression to at least one of said digital audio files.

120. (new) The method of claim 115, wherein said pre-processing comprises applying stereo imaging to at least one of said digital audio files.

121. (new) The method of claim 115, wherein said pre-processing comprises applying equalization to at least one of said digital audio files.

122. (new) The method of claim 115, wherein said pre-processing comprises applying pitch correction to at least one of said digital audio files.

123. (new) The method of claim 115, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

124. (new) The method of claim 115, wherein identifying the peak value comprises identifying a peak absolute value for each of said digital audio files.

125. (new) The method of claim 124, wherein identifying a mean level comprises identifying a root mean square for each of said digital audio files.

126. (new) The method of claim 125, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_i R_i & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

127. (new) The method of claim 1,

wherein automatically determining scale factors comprises:

generating modified audio file characteristics for each said digital audio files,

determining a scale factor for each said digital audio file from said modified audio file characteristics, and

pre-processing at least one of said digital audio files to generate at least one pre-processed digital audio file; and

wherein applying each said scale factor for each said pre-processed digital audio file comprises: applying said scale factors to each of said pre-processed digital audio files.

128. (new) The method of claim 127, wherein said pre-processing further comprises adding reverb to at least one of said digital audio files.

129. (new) The method of claim 127, wherein said pre-processing further comprises applying audio compression to at least one of said digital audio files.

130. (new) The method of claim 127, wherein said pre-processing further comprises applying stereo imaging to at least one of said digital audio files.

131. (new) The method of claim 127, wherein said pre-processing further comprises applying equalization to at least one of said digital audio files.

132. (new) The method of claim 127, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

133. (new) The method of claim 127, wherein identifying a peak value comprises identifying a peak absolute value for each of said digital audio files.

134. (new) The method of claim 133, wherein identifying a peak value comprises identifying a root mean square for each of said digital audio files.

135. (new) The method of claim 134, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i; represents the peak absolute value for each said digital audio file, R_i; is the root mean square value for each said digital audio file, K is a known constant, S_i; represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_1 R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

136. (new) The method of claim 1,

wherein automatically determining scale factors comprises:

pre-processing at least one of said digital audio files during said analysis of the digital audio files to produce at least one pre-processed digital audio file, and

determining a scale factor for each said pre-processed digital audio file and for each said digital audio file, not having been pre-processed; and

wherein applying each said scale factor comprises: applying the scale factor for each said pre-processed digital audio file to each said pre-processed digital audio file to produce a scaled pre-processed digital audio file and the scale factor for each said digital audio file, not having been pre-processed, to each said digital audio file not having been pre-processed to produce a scaled digital audio file.

137. (new) The method of claim 136, wherein said pre-processing comprises adding reverb to at least one of said digital audio files.

138. (new) The method of claim 136, wherein said pre-processing comprises applying audio compression to at least one of said digital audio files.

139. (new) The method of claim 136, wherein said pre-processing comprises applying stereo imaging to at least one of said digital audio files.

140. (new) The method of claim 136, wherein said pre-processing comprises applying equalization to at least one of said digital audio files.

141. (new) The method of claim 136, wherein said pre-processing comprises applying pitch correction to at least one of said digital audio files.

142. (new) The method of claim 136, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

143. (new) The method of claim 136, wherein identifying a peak value comprises identifying a peak absolute value for at least one of said digital audio files.

144. (new) The method of claim 143, wherein identifying a mean level comprises identifying a root mean square for at least one of said digital audio files.

145. (new) The method of claim 144, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_1 R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

146. (new) The apparatus of claim 36,

wherein the means for automatically determining scale factors is operable for:

pre-processing at least one of said digital audio files to generate at least one pre-processed digital audio file, and

determining a scale factor for each said pre-processed digital audio file; and

wherein the means for applying is operable for: applying said scale factor for each said pre-processed digital audio file to each said pre-processed digital audio file to produce scaled digital audio files.

147. (new) The apparatus of claim 146, wherein said method is performed within a server device operatively coupled over a network to a client device.

148. (new) The method of claim 146, further including receiving one of said digital audio files from a user.

149. (new) The apparatus of claim 146, wherein said pre-processing comprises adding reverb to at least one of said digital audio files.

150. (new) The apparatus of claim 146, wherein said pre-processing comprises applying stereo imaging to at least one of said digital audio files.

151. (new) The apparatus of claim 146, wherein said pre-processing comprises applying equalization to at least one of said digital audio files.

152. (new) The apparatus of claim 146, wherein said pre-processing comprises applying pitch correction to at least one of said digital audio files.

153. (new) The apparatus of claim 146, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

154. (new) The apparatus of claim 146, wherein identifying the peak value comprises identifying a peak absolute value for at least one of said digital audio files.

155. (new) The apparatus of claim 154, wherein identifying the average value comprises identifying a root mean square for at least one of said digital audio files.

156. (new) The apparatus of claim 155, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_1 R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

157. (new) The apparatus of claim 36,

wherein the means for automatically determining scale factors is operable for:

modifying characteristics of said digital audio files to generate modified audio file characteristics;

determining a scale factor for said digital audio file from said modified audio file characteristics; and

pre-processing at least one of said digital audio files to generate at least one pre-processed digital audio file.

158. (new) The apparatus of claim 157, wherein said pre-processing comprises applying said scale factors to said digital audio files respectively.

159. (new) The apparatus of claim 158, wherein said pre-processing further comprises adding reverb to at least one of said digital audio files.

160. (new) The apparatus of claim 158, wherein said pre-processing further comprises applying audio compression to at least one of said digital audio files.

161. (new) The apparatus of claim 158, wherein said pre-processing further comprises applying stereo imaging to at least one of said digital audio files.

162. (new) The apparatus of claim 158, wherein said pre-processing further comprises applying equalization to at least one of said digital audio files.

163. (new) The apparatus of claim 157, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

164. (new) The apparatus of claim 158, wherein identifying the peak value comprises a peak absolute value for at least one of said digital audio files.

165. (new) The apparatus of claim 164, wherein identifying the average value comprises identifying a root mean square for at least one of said digital audio files.

166. (new) The apparatus of claim 165, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i; represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_i R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

167. (new) The apparatus of claim 36,

wherein the means for automatically determining scale factors is operable for:

pre-processing at least one of said digital audio files during said analysis to produce at least one pre-processed digital audio file, and

determining a scale factor for said at least one pre-processed digital audio file and for each said digital audio file, not having been pre-processed;

wherein the means for applying said scale factor is operable for: applying the scale factor for each said pre-processed digital audio file to each said pre-processed digital audio file, to produce a scaled pre-processed digital audio file and applying the scale factor for each said digital audio file, not having been pre-processed, to each said digital audio file not having been pre-processed to produce a scaled digital audio file; and

wherein the means for combining is operable for: combining said scaled pre-processed digital audio files and said scaled digital audio files into a single digital audio file.

168. (new) The apparatus of claim 167, wherein said pre-processing comprises adding reverb to at least one of said digital audio files.

169. (new) The apparatus of claim 167, wherein said pre-processing comprises applying audio compression to at least one of said digital audio files.

170. (new) The apparatus of claim 167, wherein said pre-processing comprises applying stereo imaging to at least one of said digital audio files.

171. (new) The apparatus of claim 167, wherein said pre-processing comprises applying equalization to at least one of said digital audio files.

172. (new) The apparatus of claim 167, wherein said pre-processing comprises applying pitch correction to at least one of said digital audio files.

173. (new) The apparatus of claim 167, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

174. (new) The apparatus of claim 167, wherein identifying the peak value comprises identifying a peak absolute value for at least one of said digital audio files.

175. (new) The apparatus of claim 174, wherein identifying the average value comprises identifying a root mean square for at least one of said digital audio files.

176. (new) The apparatus of claim 175, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_1 R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

177. (new) The method of claim 71,

wherein automatically determining scale factors comprises:

pre-processing at least one of said digital audio files to generate at least one pre-processed digital audio file, and

determining a scale factor for each said at least one pre-processed digital audio file; and

wherein applying each said scale factor comprises: applying said scale factor for each said at least one pre-processed digital audio file to said pre-processed digital audio files to produce scaled digital audio files.

178. (new) The method of claim 177, wherein said method is performed within a server device operatively coupled over a network to a client device.

179. (new) The method of claim 177, further including receiving one of said digital audio files from a user.

180. (new) The method of claim 177, wherein said pre-processing comprises adding reverb to at least one of said digital audio files.

181. (new) The method of claim 177, wherein said pre-processing comprises applying audio compression to at least one of said digital audio files.

182. (new) The method of claim 177, wherein said pre-processing comprises applying stereo imaging to at least one of said digital audio files.

183. (new) The method of claim 177, wherein said pre-processing comprises applying equalization to at least one of said digital audio files.

184. (new) The method of claim 177, wherein said pre-processing comprises applying pitch correction to at least one of said digital audio files.

185. (new) The method of claim 177, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

186. (new) The method of claim 177, wherein identifying the peak value comprises identifying a peak absolute value for at least one of said digital audio files.

187. (new) The method of claim 186, wherein identifying the mean level comprises a root mean square for at least one of said digital audio files.

188. (new) The method of claim 187, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i; represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said

digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_i R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

189. (new) The method of claim 71,

wherein automatically determining scale factors comprises:

determining characteristics for each said digital audio files;

modifying at least one of said characteristics of said digital audio files to generate modified audio file characteristics;

determining a scale factor for each said digital audio file from said modified audio file characteristics, and

pre-processing at least one of said digital audio files to generate at least one pre-processed digital audio file; and

wherein applying each said scale factor comprises: applying said scale factors for each said digital audio file from said modified audio file characteristics to each of said pre-processed digital audio files.

190. (new) The method of claim 189, wherein the at least one pre-processed digital audio file is a modified digital audio file.

191. (new) The method of claim 189, wherein said pre-processing further comprises adding reverb to at least one of said digital audio files.

192. (new) The method of claim 189, wherein said pre-processing further comprises applying audio compression to at least one of said digital audio files.

193. (new) The method of claim 189, wherein said pre-processing further comprises applying stereo imaging to at least one of said digital audio files.

194. (new) The method of claim 189, wherein said pre-processing further comprises applying equalization to at least one of said digital audio files.

195. (new) The method of claim 189, wherein at least one of said digital audio files having a compressed format is expanded into a file having an uncompressed format.

196. (new) The method of claim 190, wherein identifying the peak value comprises identifying a peak absolute value for at least one of said digital audio files.

197. (new) The method of claim 196, wherein identifying the mean level comprises identifying a root mean square for at least one of said digital audio files.

198. (new) The method of claim 197, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i; represents the peak absolute value for each said digital audio file, R_i; is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_1 R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

199. (new) The method of claim 71,

wherein automatically determining scale factors comprises:

pre-processing at least one of said digital audio files to produce at least one pre-processed digital audio file, and

determining a scale factor for each said pre-processed digital audio file and for each said digital audio file, not having been pre-processed;

wherein applying each said scale factor comprises: applying said scale factor for each said pre-processed digital audio file to each said pre-processed digital audio file, to produce a scaled pre-processed digital audio file and applying said scale factor for the said digital audio file not having been pre-processed to each said digital audio file not having been pre-processed to produce a scaled digital audio file; and

wherein combining each of said scaled digital audio files comprises: combining said scaled pre-processed digital audio files and said scaled digital audio files into a single digital audio file.

200. (new) The method of claim 199, wherein said pre-processing comprises adding reverb to at least one of said digital audio files.

201. (new) The method of claim 199, wherein said pre-processing comprises applying audio compression to at least one of said digital audio files.

202. (new) The method of claim 199, wherein said pre-processing comprises applying stereo imaging to at least one of said digital audio files.

203. (new) The method of claim 199, wherein said pre-processing comprises applying equalization to at least one of said digital audio files.

204. (new) The method of claim 199, wherein said pre-processing comprises applying pitch correction to at least one of said digital audio files.

205. (new) The method of claim 199, wherein identifying the peak value comprises identifying a peak absolute value for at least one of said digital audio files.

206. (new) The method of claim 205, wherein identifying the mean level comprises identifying a root mean square for at least one of said digital audio files.

207. (new) The method of claim 206, wherein determination of said scale factors for N number of digital audio files, wherein N represents the number of audio files, β_i represents a known constant value for each said digital audio file, P_i represents the peak absolute value for each said digital audio file, R_i is the root mean square value for each said digital audio file, K is a known constant, S_i represents the calculated scale factor for each said digital audio file and i takes on an integer value from 1 to N, said scale factors being determined by the following equation,

$$\begin{bmatrix} P_1 & P_2 & P_3 & \dots & P_i & \dots & P_N \\ \beta_1 R_1 & -\beta_2 R_2 & 0 & \dots & 0 & \dots & 0 \\ \beta_1 R_1 & 0 & -\beta_3 R_3 & \dots & 0 & \dots & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & 0 & -\beta_1 R_1 & 0 & 0 \\ \dots & \dots & \dots & \dots & 0 & \dots & \dots \\ \beta_1 R_1 & 0 & 0 & \dots & 0 & \dots & -\beta_N R_N \end{bmatrix} X \begin{bmatrix} S_1 \\ S_2 \\ S_3 \\ \dots \\ S_i \\ \dots \\ S_N \end{bmatrix} = \begin{bmatrix} K \\ 0 \\ 0 \\ \dots \\ 0 \\ \dots \\ 0 \end{bmatrix}$$

208. (new) The method of claim 71, wherein outputting includes combining each of said scaled digital audio files into a single audio recording output as a digital file on the storage medium.

209. (new) The method of claim 1, wherein outputting includes combining each of said scaled digital audio files into a single audio recording output as a digital file on a storage medium.